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        Z*NET ATARI ONLINE MAGAZINE - AUGUST 24, 1990 - ISSUE #534
                      Your Weekly Atari News Source
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              |*|           EDITORS DESK        |*|
              |*|          by Ron Kovacs         |*|
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This week I am pleased to welcome Terry May to Z*Net Online as a staff
columnist. Terry will be writing the public domain article reviews and
other topics in the weeks ahead. We wish Terry success and look forward
to future articles.

Antic Online has changed it's name to Start Online. This area buried
within the Atari section on CompuServe will be debuting shortly. The
Antic Online area was last updated in 1988 by the staff and hasn't
seen new material since. The changes look promising so stay tuned for
more information.

ST-Journal is currently setting up issue #3 and it should be released
in September.

The Z*Net BBS re-construction has finally been completed and is
operating now under FoReM ST. We have been assigned F-Net Node 593 and
should be ready to enter the network in a few weeks. The Z*Net Echoes
conference, #(20448), will be ressigned to us and we will become the
lead node. Of course these changes are only in discussion at the
present time and will not be finalized until we learn the software and
officially receive our node information. Any BBS interested in
participating please leave email.

This issue contains reviews, two modifcation articles along with our
regular features.

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|*|        Z*NET NEWSWIRE       |*|
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ATARI SIGNS SIX FIRMS
Atari announced earlier this week that it has contracted six outside
firms to develop software for the Atari Lynx. The companies, U.S. Gold,
APTI Game Systems, TELEGAMES USA, Shadowsoft Inc., Reflex Software and
Cyber Labs, signed on to produce a total of 13 new games. Among the
new Lynx titles planned are futuristic space adventures, sports
challenges and strategic chess and card games -- all of which will be
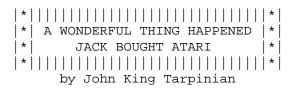available by early 1991.

RENT AND SELL PLAN
Tengen recently announced the video game industry's first-ever "rent and
sell" program which was enthusiastically received by video retailers and
video distributors attending the ninth annual Video Software Dealers
Association Show in Las Vegas last week. Tengen's new program offers
video rental store customers a $5 rebate with the purchase of a Tengen
video game playable on the Nintendo, Sega Genesis or NEC TurboGrafx-16
video game systems.

NEW LOW-COST MODELS
IBM introduced two new models this week priced as low as $18,250, or 27
percent less than IBM's previous lowest-cost model. The new models of
the IBM AS/400, a series first introduced two years ago, are intended
to be more competitive with pc systems linked through local area
networks. In addition, a new AS/Entry Model - an update of the System
36 model that was the most popular commercial computer ever sold by the
company - would be available in October for $12,195.

TANDY EARNS $56.9 MILLION
Tandy reported this week that net income per share for the quarter
ended June 30, 1990 increased nine percent to $.72 compared to $.66 per
share for the fourth quarter of fiscal 1989. Net income for the fiscal
1990 fourth quarter totaled $56,926,000 compared to $56,865,000 in the
prior year's fourth quarter. Sales and operating revenues for the
fourth quarter were $1,043,491,000 in fiscal year 1990 and $897,404,000
in 1989.


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        |*||||||||||||||||||||||||||||||*|
        |*| A WONDERFUL THING HAPPENED |*|
        |*|      JACK BOUGHT ATARI      |*|
        |*||||||||||||||||||||||||||||||*|
              by John King Tarpinian
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My first experience with Atari began in 1977 with a Pong game which I bought, on sale, for $129.00. My next experience with the company was in 1980 when I bought the basic version of an Atari 400 including a 410 Cassette Recorder for $400 from a local discount store. I was so impressed with that Atari 400 that I took it back to the store the next day and traded it for the more costly, deluxe version.

I then found a computer store near my home that specialized in two computers, HP and Atari. (That store is now a restaurant but the owner and I remain friends to this day.) It also had a computer club with about six members who met once a month. I bought about $3000 worth of equipment: an Atari 800, two 16K RAM cards, two 810 disk drives, an Amdek Color I monitor, an Epson MX-80 printer with Graphtrax Plus, and other stuff. That got me a free membership to the computer club. (I laugh when today's computer owners complain about the cost of their STs. When I purchased my first ST, I thought I was getting the bargain of a lifetime.)

Eventually, the store closed and I became president of the club. We moved and changed names but we're still meeting once a month (we're now known as 'Hacks'), and some of the original members are still with us.

All of the foregoing took place during Atari's 'Warner days.' Sometime afterwards, a magical thing. Jack Tramiel left Commodore and bought Atari.

During this time, which was still in the 8 bit days, I decided to fly up to Atari and take the 50 cent tour. The first person I met there was Diana Goralczyk, Manager of Customer Relations. With Atari for over 11 years, Diana is one of the rocks that keeps thecompany going. She signed me in and took me over to Neil Harris.

Neil, now with GEnie, was a game player's game player. He had a wall in his office lined with every game available for the Atari. Neil and I chatted for awhile, then he took me over to Sig Hartmann, one of Atari's most colorful personalities. Sig has since retired from Atari but both he and Neil were instrumental in getting the first Atari/User Group *Faire off the ground.

Sig sent me upstairs to meet John Skruch. Instead of finding John, I got lost and wound up looking in a room that turned out to be the development lab for a new machine, the ST. I had no idea what I was looking at, but I was whisked out of there and sent in the proper direction.

When I finally found John, he was very open, friendly, and enthusiastic about the current products he had under development. During the course of our visit, he took me to the employees' store where I bought an official Atari Olympics coffee cup. (I'm a sucker for Atari logo products.) How many people, I wonder, knew that Atari was the official computer of the L.A Olympics?

Leaving John, I went back to Neil's office where I found him online, playing a game, of course. We chatted about the future of Atari and its new super machine, the ST. I had hoped, also, to meet the man behind the legend, Jack Tramiel. But Jack had been in meetings all that day and I would have to wait until my next visit to Atari.

I left there feeling very satisfied. I had liked everyone I had met,
had been treated well and been made to feel welcome. My visit had been
worth the expense.

If you're a Users' Group Officer, you too can find a visit to Atari a
welcome experience. (And I recommend a visit.) If you do decide to
make the trek, be sure to call Bob Brodie, User Group Coordinator, well
in advance. He'll do his best to accommodate you. Bob's number is
408/745-2052. - JKT


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        |*||||||||||||||||||||||||||||||*|
        |*|  Z*NET PUBLIC DOMAIN UPDATE  |*|
        |*|          by Terry May         |*|
        |*||||||||||||||||||||||||||||||*|
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(Editors Note: This is the debut column from Terry May. He has taken
over the Alice Amore and will be submitting occasional articles covering
the Atari ST Public Domain/Shareware arena, and other Atari related
articles from time to time. This colun also has yet to be named.)

                   [*> Diamond Format v1.0 <*]
    Author: Robert D. Luneski   Shareware: $5.00*   Grade: A-
    GEnie : DFORMAT.ARC (#16193)   CompuServe: -unavailable-
            *Distributed free to all Diamond Back II owners

Diamond Format is one of two new utilities from the man who brought us
the popular Diamond Back II (DB2) hard drive backup utility. It comes
with both a program and an accessory version.

The GEM screen is completely mouse driven, save for automatic drive
switching (more on that later). Its many options include VERIFY, ZERO
(for a fast erase w/o formatting), AFE (for Apple File Exchange
compatible disks), write MS-DOS compatible boot sector (all Diamond
formatted disks automatically include this), TWISTED, 80/82 tracks and
9/10/18/20 sectors per track. 18 and 20 sectors, you say? That's
right -- support is provided for high density 1.44/1.6 meg drives!

One really nice feature that is borrowed from DB2 is the ability to do
nonstop formats with two drives. For instance, while drive A is
formatting, you can press B on the keyboard and as soon as A is
finished formatting, it will automatically format B with no pause.
This can be done back and forth indefinitely, which can come in handy
when formatting a stack of disks.

Yes, formatters are a dime a dozen, but I think you'll agree that this
one is a bit unique. Aside from a couple 'minor' problems (it bombs if
you try to high density format on a standard drive, and the Exit button
has to be clicked on twice in the ACC version), this is a very nice
program.

                  [*> Diamond File Finder v1.0 <*]
    Author: Robert D. Luneski   Shareware: $5.00*   Grade: A
    GEnie : DFIND.ARC   CompuServe: -unavailable-
            *Distributed free to all Diamond Back II owners

This is the other new entry into the "Careware" market from Diamond
Back II author, Robert D. Luneski. Like Diamond Format, the interface
to this program will be very familiar to DB2 owners; it has the same
look and feel as DB2. It, too, is offered as both a program and an
accessory.

Aside from the file mask entry line, Diamond File Finder is completely
mouse driven. Radio buttons are offered for all your drives up to P:,
SELECT ALL (for selecting all present drives), TO FILE (for saving
output to a file), HELP, ABOUT, and the default FIND FILE, which
searches all selected drives for the file mask.

Not only are the standard * and ? wildcards supported, but also
supported are UNIX style wildcards that give this program unique power
among file finders.

The bottom half of the screen contains a window that displays all files
found that match your file mask. Unfortunately, if you have a lot of
files fitting the file mask, you'll have some scroll off the top of the
window with no way of going back to look at them. However, ^S, ^Q and
^C will allow you to pause, resume and abort, respectively, while the
search is active.

This program, along with Diamond Format, is evidence that Mr. Luneski
is not satisfied with delivering ho hum utilities. This program is a
pleasure to use; it's fast and is more powerful than any file finder
I've used.

                          [*> Sorry v1.8 <*]
    Author: Paul Bonnette   Freeware   Grade: A-

    Very good graphics and gameplay make this a must-have for all fans
    of the board game by the same name. LOW RES ONLY.

                          [*> Fuzzball <*]
    Author: M. Pezzotto   Freeware   Grade: B

    This is a Q-Bert clone with decent, though unspectacular graphics.
    LOW RES ONLY.

                          [*> Simpsons.Seq <*]
    Author: -unknown-   Freeware   Grade: B+

    Familiar portrait of The Simpsons, with one notable exception: Bart
    shoots a projectile at the screen with his slingshot, cracking the
    screen of your monitor! Only 30452 bytes.

                          [*> Machine Gun <*]
    Author: Harlan Hugh   Freeware   Grade: C

    Had a hard day? Take out your frustrations on your desktop with
    this machine gun accessory!

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              ///////////////////////////////////////////
              ||||||||||||||| Z*NET DOWN-UNDER |||||||||||||||
              \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
              |||        _       From the Land of the "Kiwi" |||
              |||      ( )o      The Flightless Bird.        |||
              |||      /\  \       Not the fruit.            |||
              ///////////////////////////////////////////
              ||||||||||||||| By Jon Clarke |||||||||||||||
              \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
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                 The changing face of the Global Networks

                   The humble BBS bites back :: Part 4

                          Where do we go now?

Glossary Part ii
================
IPSN   International Packet Switch Network
NUA   Network User Address
NUI   Network User I/D number
PAD   Packet Assembler Disassembler
PSN   Packet Switch Network
Z*Net   The beST on-line magazine <grin>

Over the last few weeks we have looked a few of the more popular mail
systems avalible world wide to most BBS users. How many of you have
popped on and left a few messages in say F-Net or Fido-mail in the last
week?

During this series and in other articles appearing in Z*Net you will
have seen mention of the International Packet Switch Network or to the
Packet Switch Network (PSN). "Yes, but what does this have to do with
my local BBS?"

Future developments / options
=============================
Packet Switch Network

The Packet Switch Network (PSN) opens access to local BBS's a 'zillion'
fold, as users world wide can dial into any BBS that has a PAD (Packet
Assembler Disassembler) attached to it. With a PAD attached to one of
the nodes/phone lines on a BBS it will allow the following ...

[1] International access to the BBS via the various PSN carriers.

It does not matter what country you are in. You will have some form of
access to the PSN and or the International PSN. The hardest part about
this is finding BBS's that have PSN access. I have found a good place
to look for these access numbers are in..

       [i] News-letters
      [ii] Magazines <- a _very_good_place to find European BBS's
     [iii] BBS listings

       -> Look for something like this PSN:053063230988 <-
                                          ^   ^BBS address or NUA
                                          ^Country DNIC or Address

[2] National access to the BBS via the various PSN carriers.

Contact your local Telecom/Post Office/Phone carrier and ask for a list
of PSN Network address's. Like the 'phone-book' for data-networks.

[3] Links to other Networks for the BBS and its users'.

You can gateway to other services if your local BBS support this.

[4] Cheaper access to the users out of the toll free area.

Well that is the bottom line these days, CHEAP! By using the data
networks like PSN you do not incur TOLL charges rather a data charge.
(These cost vary from country to country). So imagine hearing about
this fantastic BBS that has all the files you have been looking for.
Well after looking up the phone book for the TOLL charges you see a
note saying they have PSN access. "Hmm" you say.

"I can either have 30 minutes on normal tolls or 2 hrs on the PSN for
the same price. I'll go for the PSN connection"

How do we get access to the Packet Switch Network
===
The BBS user.
=============
Contact your local Telecom/Phone company/Post office or VAN carrier.
This may be harder than it sounds. I suggest you drop a note on your
local BBS in the mail section and ask those that already use it how
they went about getting a Network User I/D number. Along with who they
contacted. I have heard some tales of people more akin to finding gold
under The White House rather than just walking into the local Telecom/
VAN carrier office and getting a Network User I/D.

The BBS Sysop.
==============
Contact your local Telecom/Phone company/Post office or VAN carrier.
Request information about ...

  [i] The cost to install a PAD
 [ii] How to install a PAD
[iii] What additional equipment is required?
 [iv] What is the monthly rental?
  [v] What is a PAD? <- Always let them explain what is involved.

 Tip:: If your local carrier has the option go for a dial in PAD from
       the local exchange this will allow local calls when the PAD is
       not in use.

BIG TIP:: Never put a reserve charge PAD in unless your pocket book
          is the size of your ST <grin>, or you have sponsorship etc.

Now you have all this out of the way set up your modem and PAD, let the
world know you have ISPN and PSN access to your BBS and go for it.

A sample ISPN,PSN call.
=======================

 ATDT 9914   <- Call the PSN
 Connect 9600   <- Connected

```
                |*||||||||||||||||||||||||||||||*|
                |*|  ST DISK DRIVE CONVERSION  |*|
                |*|   SINGLE TO DOUBLE SIDED   |*|
                |*||||||||||||||||||||||||||||||*|
                 by John Hissink (703) 780-6263
```

The single sided Atari SF354 disk drive can be converted to a double
sided drive for $94. It is completely equivalent to the SF314 except
that it uses far less power. The SF354 contains an Epson SMD130 drive
and the SF314 contains an Epson 140 drive. In addition, both drives
contain a connector board at the rear of the drive housing which
interfaces the Atari cables to the headed sockets which plug into the
Epson drive.

The boards also have jumper wires which tell the 520ST what type of
drive is connected. The cases for both drives are identical (except for
the SF354/SF314 marking on the outside.) There are eight Epson SMD-100
series disk drives. The SMD-130 and SMD-170 are interchangable single
sided drives. Similarly, the SMD-140 and SMD-180 are interchangable
double sided drives. The difference is that the SMD-130 and SMD-140 are
intended for AC powered equipment and consume 1.3W on standby and 6.9W
on read/write. The SMD-170 and SMD-180 are designed for use with both
AC and battery powered equipment and use 0.3W on standby and 2.9W on
read/write.

A good source for the Epson SMD-180 drive is:

                    Halted Specialties Co. Inc
                       827 E. Evelyn Avenue
                         (408) 732-1573
                       Sunnyvale, CA 94086

The cost is $89 plus $5 shipping. They accept phone orders using a
credit card and ship via UPS. Since the cost of a SF314 is about $219
the conversion results in a considerable saving. The only problem is
what do you do with the old single sided drive?

To convert the drive, proceed as follows:

1. Remove the four screws around the perimeter of the SF354 disk drive
     and gently lift the rear of the cover while lightly pressing in the
     disk connector sockets at the rear. The sockets and switch should

should pop free and then the top can be unhocked from the disk
active LED and disk eject switch at the front.

2. Carefully unplug the two socket connectors between the interface
    board and the rear of the SMD-130. Use a small, flat bladed
    screwdriver to gently and evenly pry them free. Looking at the top
    of the board in the lower left-hand corner is a place for a jumper
    wire marked W1 between locations SG and FG. Connect a piece of wire
    between these point and solder it in place. Turn the board over and
    rotate 180 degrees. Find the four parallel jumper wires on the
    right hand side. Remove the first and third wires, either by
    cutting them away or unsoldering them. This completes the
    modifications to this board.

```
                                                1    3    1    3
  |                                        O    O    O    O    |
  |   O SG-                 :  new jumper   x   L |   x  L |   |
  |   :    W1               x  remove jumper x  2 |   x  1 |   |
  |   :         J5   J6     |  existing jumper O  O    O    O    |
  |   O FG-                                  2   4    2    4    |
  |_____                    _____|

    top                                    bottom
```

3. At this point, you have to decide how functional you want the drive
    active LED to be. You will probably have noticed that the disk
    active LED is on the left front on the SMD-180 and on the right
    front on the SMD-130. You have three choices.

 a) Forget about it and use you ears to tell you when the drive is
    active;
 b) Drill a small hole through the plastic front at the location of the
    SMD-180 LED;
 c) Unsolder the LED on the SMD-180, extend it on wires to the SMD-130
    location and epoxy it in place behind the old LED window. I used
    clear epoxy with a small piece of silver foil as reflector to
    achieve sufficient LED brilliance. I did not change LEDs as I
    suspect the SMD-180 LED has a far lower driving current. To remove
    the LED, I had to remove the two screws holding the board, the two
    cables pluged in by the stepper motor, tilt the board up and use a
    solder sucker to get it out. If you're willing to do this, you
    don't need further instructions!

4. Remove the three screws on the bottom of the disk drive case and
    lift off the SMD-130. Remove the two screws holding on the RFI
    shield and slide it off to the rear. Now slide it onto the new
    drive and put the two screws back in place. Use a small Phillips
    screw driver (about 1/8" diam) to loosen the two screws holding on
    the plastic disk case front from the SMD-130. They are accessable
    from the top looking vertically straight down just behind the
    plastic front. Once the screws are completely free, gently lift the
    plastic front off the SMD-130 taking the screws along. Look behind
    the eject button and note that it is attached by two plastic hooks
    through a rectangular hole in the metal eject lever. Very gently
    compress the two plastic clips together, remove the plastic knob and
    push into the hole on the SMD-180 eject lever. Install the plastic
    drive front on the SMD-180 by reversing the removal procedure.
    Screw the SMD-180 onto the case bottom using the three retaining
    screws. Be careful to position it as far forward as possible so
    that the plastic front touches the lip on the case bottom.

5. Plug the two connectors from the interface board into the rear of
    the SMD-180, hook the top cover over the LED and eject button and
    lower the rear over the interface board. Once in place, do up the
    four screws on the bottom and the SF354 is now a SF314. Hook up and
    enjoy.


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                    |*|||||||||||||||||||||||||||||||*|
                    |*|        HARLEKIN REVIEW        |*|
                    |*|       by Terry Schreiber      |*|
                    |*|||||||||||||||||||||||||||||||*|
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Ever needed an text editor in the middle of a database? Harlekin, the
new accessory has the following features:

- Text editor
   o Block copy, move delete or print   o Page numbers, foot and headers
   o Print (does not support Atari Laser as yet)
   o Print to disk   o Ascii Mode, Text Mode
   o Search and replace
A very powerful little program available at the click of an icon.

- Diary
   o Built in word processor   o Time Management system
     o Sort and search function   o Hour,day month,year calendar
     o Auto time stamp on note files   o Assign notes to calendar
     o Completely icon driven   o Catalogue your notes to icons
This program is great for an appointment calendar. The ability to have
it resident at all times allows you to check and add items while
running any program.

- Printer Filter
   o Allows printing of the foreign character set from ASCII files
   o Allows ASCII files to be printed in graphics mode
   o Allows printer commands to be set-up on icons (Bold, italics,
     spacing, printer reset, alternate character sets)

- Terminal Program
   o VT-52 terminal   o Phone dialer
   o Capture buffer   o xmodem/ASCII file transfer
   o xmodem 128 / 1024 bit blocks   o Function key and GEM support

- ASCII Table
   o Displays all of the ST's ASCII character set
   o Displays Hex and Decimal equivalents
   o Simple point and click system

- Calculator
   o Hex - Decimal - Binary conversions
   o Parenthesis support   o Support up to nine digits
   o Memory store and recall

- Monitor
   o Edit bytes on disk or memory   o Works in sector or file mode
   o Search and Goto functions   o Displays Cluster and Sector

- Macro Processor

o Adjustable speed   o Adjustable delay function
        o Compatable with most programs including others in Harlekin

- File Utilities
        o Copy   o Rename   o Move   o Create folders   o Delete
        o Disk size - free space

- Disk Utilities
        o Format 80-83 tracks   o Format 9 or 10 sectors per track
        o Adjustable interleave
        o Copy all tracks or only the tracks used
        o Option to format used tracks only
        o Set number of copies up to 99   o Adjustable FAT table

- Ram Disk
        o Reset proof   o Auto-loading on boot up

- Clocks
        o Normal display clock   o Count down clock
        o Alarm clock

- RS 232C
        o Set baud rate   o Parity set
        o stop bit   o handshake

- Print Spooler
        o Set printer type (dot matrix/daisy)
        o Colour or Black and white   o Dot density
        o Draft or final modes   o Parallel or serial type printers
        o Fanfold or single sheet paper   o Adjustable size

- Control Panel
        o Adjust keyboard layouts   o Set time and date
        o Mouse speed select   o Screen saver
        o System font or user defined font

- Information
        o Displays which modules are reset proof
        o Displays used memory for each module
        o Displays total system memory available and in use
        o Allows saving default set up of system settings

All this for less than $100.00 Canadian. True most of these are
available as public domain or shareware but not with the this many
features. Fully configured this program saves time and time is money
in today's business.

Compatability...... 9   Ease of use.........7

I highly recommend this package to anyone in a productivity envirorment.
I use this program in conjunction with Cricket (point of sales program)
at our store in ourder to keep track of personal orders and a customer
database at my fingertips.

            |*|||||||||||||||||||||||||||||||||*|
            |*|ULTIMA 5-WARRIORS OF DESTINY|*|
            |*| |*|

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         |*||||||||||||||||||||||||||||||||||*|
                       by Aragorn


                    ORIGIN SYSTEMS INC.
                136 Harvey Road, Building 'B'
                   Londonderry, NH 03053
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No doubt many people always glance at fantasy games warily because the
general talk is, "great, another fantasy based game has come out." No
doubt your goal is to attempt to save the land with a group of warriors
and sorcerers by bashing every monster in sight. Well, unlike the
typical adventure, Ultima V breaks tradition because the game has a
worthy cause, something which many other fantasy games generally lack.

The technology of world has changed, and computer software has improved
immeasurably. One product that has grown over the years is the Ultima
series written by Lord British. Many Atari users have grown from an
Atari 800 to an Atari ST, and over the years, the Ultima games have
grown with the computer as well. Each game noticably improved as
technology grew more advanced over the years.

In Ultima I, you controlled one heroe to battle Mondain, Ultima II you
fought against Minax, Mondain's apprentice and triumphed once more.
Then in Ultima III, you fought Exodus, the progeny of Mondain and Mixax
with a group of four. Finally, in Ultima IV, you quested for the
ultimate goal, to discover the Codex of Ulitimate Wisdom within the
Great Stygian Abyss. Now you are ready to, experience Ultima V.

Lord British has disappeared while on an expedition, and Blackthorne, a
ambitious subject seizes control of Britannia. You are summoned once
more to aid Britannia in its time of aid.

Now, what is interesting is, this time, instead of distributing points
to what attributes you decide, your status is determined by answering
questions given by a gypsy. These questions vary and the choices given
are difficult in every situation. Your answers decide how high your
skills will be. This is a much better and creative than previous
methods and an ingenious idea.

One enjoyable part of playing the game is meeting the old characters
you've met before. Meeting old adventurers that quested with you in
previous Ultima gives you a sense of true adventuring.

Once again, this realistic game offers you graphic detail, animation,
sound effects, and realistic lighthouses that constantly gives out
light on the sea, over 30 multi-level villages, towns, castles, keeps,
also new large dungeons, and many new creatures. Whew!

This game is realistic in that, in order to get information to help you
on your quest, you must communicate with the townsfolk and villagers.
However, these people follow their own individual schedules, sleeping
and getting up at their own time. Everything happens according to
their own schedule, which adds the realism needed in a fantasy game.

The manual, the Book of Lore that comes with the package of Ultima V,
is quite thorough in explaining Britannia to its fullest. History,
geography, language, combat and other topics are covered in detail and
can be enjoyed by the fastidious adventurer. The package includes an
essential map of Britannia, the 54 page Book of Lore, and an useful

Ultima V Quick Reference Card which summarizes the commands, available
weapons, armour, and includes a chart of spells on the back.

Ultima V is designed to challenge the adventurer for a long period of
time. This is not one of those games you solve in a day. You can cut
down the time to solve this difficult game, however, by purchasing the
hint book.

One of the aspects of the game I enjoyed the most is the fact that you,
as an adventurer, seek the eight virtues: Honesty, compassion, valor,
justice, sacrifice, honour, spirituality, humility. These qualities
were discovered in Ultima IV where you received the honor of the title,
Avatar.   These qualities are scarce in the world today, and just
maybe, people can learn a little about these qualities from playing the
game.


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              |*|MIDI PHONE CONNECTION REVIEW|*|
              |*|      by Terry Schreiber     |*|
              |*|||||||||||||||||||||||||||||*|
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MIDI jam sessions over the phone? Yes, with a new software package -
MIDI-Phone Connection you can play realtime over the phonelines with a
standard 2400 baud modem.

The music that you play is transferred in a digitally compressed form
and re-created on the other MIDI system. The MIDI systems do not have
to be identical because the program contains MIDI system mapping
information.

Text messages may also be transmitted simutaniously without any delay
in the music.

As an added feature the program conatins a keyboard re-mapper which
allows you to re-map any note on your keyboard into any other note or
chord on any MIDI channel. A different mapping is allowed for each
song.

The software contains a music sequencer with standard MIDI file support
so that you may record and playback your session later.

With standard 2400 baud modems there is a delay of about 20
milliseconds. You may use the program with 9600 baud modems to reduce
the delay to about 6 milliseconds.

People can now have real-time musical interaction without having to be
in the same room or city.

MIDI-Phone Connection will be available in September for $195.00 from
your local dealer or contact:

                    J.D. Koftinoff Software
                          Box 1405
                       Grand Forks B.C.
                          V0H 1H0
                       (604) 439-7583

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|*|    MIGL'S MOUSE MODIFIER    |*|
|*|      by Michael Hadley      |*|
|*|||||||||||||||||||||||||||||||*|
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(Reprinted from the Puget Sound Atari News, July 1990)

Let me first admit that I would rather figure out how to do some things
myself than pay someone else to do them for me. Maybe it comes from
being brought up in a technical (read Air Force brat) environment. I'll
leave proving that conjecture to the social scientists and
psychologists; I know I like doing technical stuff for myself. I did my
own memory upgrade (with a minor checkout from Bud at Xanth) and
installed PC Ditto II (how many of them worked the first time???) on my
ST. I also built my own Hard Drive system and added two floppies
(switchable and the topic for a later article) so I have been inside my
1040 ST frequently.

This being the history of the moment, I bring to the fore a way to build
a sort of Mouse Master. I say "sort of" not to say it is funky or semi-
functional, but rather that the real "Mouse Master" is a copyrighted
product from Practical Solutions. Since I have never been inside a
"Mouse Master" I can only say from conjecture that what I made is "Mouse
Master"-like in its function. It allows you to switch from the mouse to
a joystick without constantly unplugging either one. It also keeps you
from having to lift up your keyboard to replug anything. That is one of
the few features of the ST that I dislike, but I understand the mouse
and joystick port placement from the "functionality" viewpoint.

Atari has the keyboard microprocessor right there in my ST and probably
thought it efficient to place the ports close to the processor. Be that
as it may, this Mouse Modifier project fixes that port placement
"feature" and allows switching between mouse and joystick at the same
time.

When I decided to fix this "feature" I had fought with the ports for a
couple years and finally added "the last straw" to the pile. My current
Mouse Modifier has been installed for over two years and seven moves (I
got tired of moving, too!) and has never had or caused any problems. I
like it a lot. It hides behind my ST and is easily switched from mouse
to joystick. If I were a true mouse freak, I would probably have two
different joystick ports on the joystick side to allow me to use either
a control stick type (competition style) or a standard one for my three
year old nephew. It is possible, using the simple trick I use here,
with two switches for four ports. But enough of the B.S. and on with
the article.

In case you did not know, the Atari joystick is a group of four switches
each set 90 degrees apart in a single plane. To make some signal when
these switches close, there is also a 5 volt line tied to one side of
each of these switches. When you move the joystick in some direction,
it closes one or two of these switches, sending the 5 volt signal
through the switch and along any line to the Joystick port.

For example, moving the stick Up and Right closes the Up and Right
switches, sending a signal along those two conductors to the Joystick
port. These signals are read by the microprocessor and the appropriate
commands are passed to the ST's Motorola 68000 CPU, if the programmer

has done her stuff right.

In the case of the mouse, the signals are supplied by a different
mechanism. The wheels against which the mouse ball rolls are each
connected to a larger wheel and aligned at 90 degrees to each other.
The larger wheels have a series of slots in them that interrupt the
light beam from an LED (Light Emitting Diode) which is sensed by a photo
diode. This pulses the beam, allowing the mouse to tell that it is
being moved. The direction of movement is determined by the the timing
of the pulses - as the two sensors are not evenly spaced along the edge
of the wheel. This makes it possible to determine which direction the
mouse is moving because the timing between the pulses varies from one
direction to another.

So what is the trick, you ask? When is he going to explain the Mouse
Modifier?

The trick is very simple. To switch between the mouse and the joystick
in the same port, all you have to do is switch both the 5 volt line and
the ground at the same time. Turn off the power to the mouse and apply
power to the joystick (or the other way around) and you have the fix.
Since the 5 volt line is pin 7 and the ground is pin 8, you need a DPDT
(read Double Pole, Double Throw) switch to switch between the new ports.
I'll describe it in more detail, though, to clarify the project. A
parts list follows at the end of the article. All part numbers in the
text are for JDR parts because they are shorter. Male parts have the
pins showing, though they have a skirt that fits around the female part,
which has holes into which the pins fit. Vaguely confusing, that!

Note that the procedures are a bit different, depending on whether you
use solder-on or clamp-on connectors. I designate the steps with a
label "Solder:" or "Clamp:" if the steps are distinctly different, and
"Both:" if they are identical. If I seem to ramble, I am being
redundant. Not everyone conceives of something in the same way. I have
tried to describe the project in a way that can be easily recognized.
The drawing is admittedly quasi-schematic.

Both: I used a 33 inch piece of 25 lead ribbon cable for two reasons.
One was that I had some in stock and the other was that with the two
plugs attached to the end, the spacing for the joystick ports under the
keyboard was just right. The first step is to split the cable at one
end, making a 25 lead ribbon cable into two 9 lead and one 7 lead stub.
Count nine leads in from each side and split the cable (between the
ninth and tenth lead) leaving a seven strand flap in the middle. One or
two inches is plenty of flap. Trim if you want to, though they are
unused.

Clamp: Now squeeze a one of the nine pin female IBD09S "plugs" onto
each nine lead ribbon. Make sure that they are aligned the same; when
you look at them from the front, both have the narrow part up (or down)
so the ribbon will lay flat UNDER your keyboard.

Solder: Before soldering the connections, look closely at the plugs on
the bottom of the keyboard. Note their orientation. Remember that the
cable will lie flat underneath the machine. The object is to have the
ribbon cable that leaves the plugs leave at a right angle and go under
the machine. Mark the outer lead on each plug. In one case the outer
pin will be pin 1; in the other it will be pin 5. Make that your first
solder joint on the respective plug. For example, if the plug to port
P0 is on the right, solder the outside lead to pin 1 on the plug. The

inner-most lead of the 9 lead ribbon will be soldered to pin 5 on the
plug. The joystick plug would be just the opposite, with the outer
(other side of the cable, remember) lead soldered to pin 5 and the inner
one soldered to pin 1. Make sure that the plugs are both oriented the
same way before soldering any more leads in place. Check that the plugs
leads are leaving the solder joints turning away from the bottom of the
keyboard.

Now split the leads and solder them alternately to the bottom then top
posts; the order from the above Mouse port example would be to start at
pin 1 and solder the leads inward in the order 6, 2, 7, 3, 8, 4, 9, 5
(done).

Both: Split back the other end of the ribbon cable in the same way, but
split it back about eight inches on the Mouse side of the cable. Clip
off the excess on the Joystick side, so the Joystick side is 8 inches
shorter. Now comes the "make sure" step. Plug a male connector into
each female already attached to the cable. This is the simplest way to
assure correct cable connections.

Clamp: Make a loop with the cable, making sure it does not twist, and
mark the respective positions of the male plugs. Clamp the Joystick
side male first. Now slide a male onto the longer Mouse side, even with
the Joystick connector. Make sure the connector is oriented like the
in-place connector. Clamp it into place. The tail extends about eight
inches beyond this connector. Clamp the other male onto the end of the
tail, making sure the orientation is the same as first Mouse connector.
Clamp it in place.

Now carefully split the ribbon Mouse side ribbon cable at the first NEW
Mouse port. This must happen on the long side, between the male and
female, not the two males. Split the fourth and sixth leads (from the
outside) about an inch back from the connector. Clip the leads close to
the edge of the connector. This will isolate pins 7 and 8 from the main
cable. You can also split the same leads on the ribbon between the two
males, but do not clip them at this point. Leave about a half inch of
ribbon unsplit close to each connector. Strip these two leads and
solder a four to six inch piece of 26 or 28 gauge wire to each lead.
Strip the unsoldered end of each lead, then fold these leads back along
the ribbon cable.

Solder: Strip the leads for soldering. Split the Mouse side ribbon,
separating the fourth and sixth leads (from the outside) about eight
inches back. Fold these two leads back along the ribbon and tape them
for now. Solder the male connectors on the ends of the cables now
stripped. Leave them plugged into the females while you solder. Solder
the cables onto the connectors as I described above, and remember to
skip pins 7 and 8 as you solder across the connector. Now carefully
strip the cable at the point where you are mounting the inner Mouse
port, at about the same position on the cable as the Joystick connector.
If you strip these carefully, you will not break the ribbon leads and
can simply bend them and solder them into place without handling two
separate leads for each pin. Remember to skip leads 7 and 8 on this
connector as well.

Now get some scraps of wire, about 26 or 28 gauge, and solder an eight
inch piece between the respective pins 7 and 8 of the male connectors;
all the pins should now be connected and you should have two leads
folded and taped back onto the ribbon cable.

Both: efore you go further, plug the cables into the Mouse/Joystick
ports under the keyboard. Now run the cable under the machine and back
to the project box. Mark the location where the Mouse port (P0) edge of
the cable intersects the edge of the box. (Note that the box I
specified has a metal lid. I simply screwed the lid down gently onto
the cable, after making a shallow notch in the box side where the cable
crosses it, clamping it in place. The cable stays flat.) This will
show the male jack placement. Mark the position for the holes in the
box side.

Start by cutting holes for the male plugs into the project box. I
stacked the two Port P0 (a & b) ports on the right side, facing the box;
the first just below the top, the other spaced a quarter-inch below the
bottom edge of the top connector. Make sure you have clearance between
them, mostly for ease in assembly.

You can now mount them after you drill the mounting hardware holes.
Checking carefully and proceeding slowly will yield you a nicer looking
project.

Now that you have the jacks mounted in the box, drill a hole in the top
for the DPDT switch. Make sure it is not in a direct line with the
point where the ribbon cable enters the box, but not too far away, as
you will have only about four inches of leads for the connections to the
switch. Go ahead and mount the switch in its hole now, so that you can
easily support the stuff as you are soldering. From here on, the
project requires soldering, so I make no further distinctions between
the processes.

Take the leads that you taped back along the ribbon cable and solder
each to one of the middle terminals on the switch. These two are the
source of the 5 volt and ground for both the Mouse and Joystick. Pick
one pair of leads from one of the male connectors and solder them to one
end of the switch. Make sure you solder the lead to the proper side of
the switch; check with an ohmeter. Pin 7 on the male must connect to
pin 7 of the female. If you have any doubts, check again. Consult the
diagram. You should be able to read continuity from the male to the
female for each lead. Check them ALL at this point. Now flip the
switch and check again. Pins 7 and 8 should be open. Solder the
remaining wires from the other male connector and perform the same
checks. Make sure that you have no shorts between any leads on the
cable. Each lead should connect to only one pin on the connector.

If you have checked all connections and are sure it will be okay, plug
the jacks in to the Mouse and Joystick ports on the ST. Now plug the
mouse into one P0 port and the Joystick into the other P0 port. Boot up
the computer. Below is a checklist for "debugging" the Mouse Modifier:

Check to see if the Mouse works:

___Yes, it works. Mark the current switch position as the Mouse
   position. Try a Joystick game. Remember to switch to the Joystick
   position. Go back to the top and replace Joystick for each mention
   of Mouse.

___No, it does not work. Check the cursor by holding down the Alternate
   key and using the Arrow keys.

___The Pointer moves now. Flip the switch and try the mouse. Go back
   to the top of the checklist.

___The Pointer does not move. WORST CASE! Turn off the machine and
   double check all connections. Go back to the top.

Now assemble the box, carefully tucking in all the leads. Make sure the
respective Mouse and Joystick positions are marked at the switch. This
should now eliminate all Mouse/Joystick replugging and the associated
lift-the-computer-and-plug-in-something-different syndrome.

Reach your left arm out in front of yourself. Move your arm upward in
an arc until it is above your shoulder. Bend your arm at the elbow and
reach behind you until you can pat yourself on the back.

Congratulations! You have built a successful Mouse Modifier!

Below is the table of parts needed to build the Mouse Modifier. I have
shown at least one source for many parts and you might find them
elsewhere as well. I could not find the 9 pin Mini D ribbon connectors
at Radio Shack, so try some place like Radar Electronics in Seattle or
a specialized electronic outlets for them. The Rad Shak part listed
here is a solder type connector. JDR Micro is a big mail order house in
San Jose; they have most anything you might want but ask for a minimum
$10.00 order. Their order phone is 800-538-5000.

Happy Scrounging!

Source	Part Num.	Description	Quan.	Cost ea.
Radio Shack	275-666	DPDT switch	2	$ 1.59
JDR Micro	DP/DT	DPDT switch	2	$ 1.50
JDR Micro	IDB09S	9 pin Sub D Ribbon Female	2	$ 1.45
Radio Shack	276-1428	9 pin Sub D Solder Female	2	$ 1.19
JDR Micro	IDB09P	9 pin Sub D Ribbon Male	3	$ 1.39
Radio Shack	276-1427	9 pin Sub D Solder Male	3	$ .99
JDR Micro	RC25	25 pin Ribbon Cable (grey)	3 ft	$ .38
Radio Shack	270-233	Box for project	1	$ 2.19

Nuts and bolts to hold things together ....$.??
Pieces of 26 or 28 guage wire: 2 @ 8" ....$.??


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|*|        Z*NET ECHOES         |*|
|*|      by Terry Schreiber     |*|
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On The FNET

The on-going war between the Atari supporters and the Atari bashers
still runs wild through-out most message bases. The Atari supporters
stating that unless Atari gets user support it is heading for a down-
fall and the opposition stating that they have had their chance and
blew it.

The strange thing about this arguement is that both sides agree that the hardware is great but the problem lies in the support and service areas. The negative of this situation is that when you buy a car you base ninety-nine percent of your decision on what is right for you - not because you don't like how the company is being run. Car dealers supply service and support as is what is supposed to be happening in the computer world and does with most brands of computers. When was the last time you heard an IBM, Mac, or Commodore user gripe about the computer company? Most complaints can be handled by the dealer and believe nme most dealers do pass them on.

Atari bashers think they are doing everyone a service by constantly nagging Atari about mistakes and injustices while in-fact they are defeating their own purposes. Three years ago developers started dropping the ST because of lack of sales. The reason given was there were just not enough machines out there to justify the support. This is further hampered by the bashing which as a retailer, former user group president, BBS sysop and endulged end user I can state has effected sales this last year.

On the positive side if every user sold two friends on the Atari computer our userbase would increase three-fold making a much louder voice and more attractive market to dealers, suppliers, developers and more end users.

You have a choice - You can sit there and whine, yell, scream and write nasty things about the company or you can take a positive approach and make the Atari machine, the machine we all love so much, the viable product it should be.

Next week a quick review on AT-ONCE, the new 286 emulator out of Germany (providing it arrives on Monday) and a note to let you know that Ron now has the Z-Net BBS running on FoRem software and hopes to have it networked very soon. FoRem/Turbo boards are invited to join the Z-Net Online conference.
                    Lead node #448
                Conference code 20448

Teacher: "What is Machine language?"
Student: "A smattering of obscene words used when my father is working
         at the computer."

Strange but true: The name mouse mat or pad gives the misleading idea that it's function is to catch refuse from the mouse. Why is it that it seems to work in reverse.

CompuServe at 71777,2140 and on GEnie at Z-NET.
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